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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/082,265	02/26/2002	Kenneth J. Krauss	87356.2180	6422

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EXAMINER

RIDLEY, RICHARD

ART UNIT	PAPER NUMBER
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3651

DATE MAILED: 05/29/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/082,265

Applicant(s)

KRAUSS ET AL.

Examiner

Richard Ridley

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 01 April 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 February 2002 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Drawings*

1. The applicant indicated in paper no. 5 that drawing amendments have been submitted. Drawings have not been received by the Office. The examiner requests that the corrections be sent in reply to this Office Action. Additionally, in response to the amendment of paper no. 5, the examiner notes a new objection to the drawings.
2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character “12” has been used to designate both the **housing** and the **cylinder**, see figure 1. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.
3. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the “**hinge is disposed upstream...relative to the movable plate**”, as recited in claims 1, 11, 16, must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

*Specification*

4. The disclosure is objected to because of the following informalities:
  - Page 8, line 4, and throughout the specification, “cylinder **44**” is not shown in the drawings

Appropriate correction is required.

*Claim Rejections - 35 USC § 112*

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
2. Claims 1, 11, 16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1 recites the limitation "so the plate pivotally mounted by a hinge and movable". A plate that is “pivotally mounted by a hinge and movable” is not previously recited. There is insufficient antecedent basis for this limitation in the claim.

Claims 1, 11, 16 appears to be incorrect in reciting that the “hinge is disposed upstream...relative to the movable plate”. In fig. 1, for example, it appears that the hinge is downstream (i.e., to the right) of the movable plate, where material moves from left to right.

Claims 1, 11, 16 recite the limitation “**greater than 0 and less than 90 degrees, and at which position the hinge is disposed upstream an angle to the longitudinal direction relative to the movable plate**”. What is means by the phrase “which position”. This is unclear since

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there are infinite positions of the plate between 0 and 90 degrees. What position is being referred to?

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-4, 6-8, 11-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Hanson (USP 3,917,236). Hanson discloses a similar device, shown in fig. 4, for feeding particulate material. The device of Hanson comprises a(n):

- Conveyor belt (41) that conveys the material in a forward longitudinal direction
- Material inlet (EX1, labeled by examiner; material exiting the bottom of the hopper 12 is feed to the conveyor) located above at least a first portion of the conveyor belt
- Movable plate (46) located above at least a second portion of the conveyor belt (plate 46 is downstream of the material inlet EX1), that provides a force on the particulate material, wherein said plate is mounted for pivotal movement (the plate is mounted such that is pivotally moves), and wherein said plate is mounted for movement to a first position at which the plate substantially prevents movement of coal in the longitudinal direction (C5/L3-4)
- Hinge (EX2) that supports the plate for pivotal movement (although the hinge does not support the plate directly, it does support the plate for pivotal movement)

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- Power actuator (45) that moves the plate
- Controller (C5/L1-9) that controls the force applied by the plate and the position of the plate (as the plate is moved the amount of plate surface area that engages the material changes resulting in a change in force applied by the plate)
- Means for conveying (41) the material in a first longitudinal direction
- Means for urging (45) a movable plate (46) against the material to apply a force against the material in a direction other than the first longitudinal direction (the force applied by the plate against the material is equal to and opposite to the force applied to plate by the material that moves in the first longitudinal direction)
- Means for supporting the plate for pivotal movement (the plate is supported such that it pivotally moves)
- Power actuating means (45) for moving the plate
- Means for controlling the force applied by the plate (C5/L1-9; C6/L28-31; as the plate is moved the amount of plate surface area engaging the material changes resulting in a change in force applied by the plate)
- Means for controlling the position of the plate (C5/L1-9; C6/L28-31)

Additionally, Hanson discloses a method for feeding particulate material, the method comprising:

- Conveying material in a first longitudinal direction (material moves in a first longitudinal direction by belt 41)
- Urging a movable plate against the material to apply a force against the material in a direction other than the first longitudinal direction (C6/L28-31; plate 46 engages the

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material conveyed by belt 41 and the force applied by the plate against the material is equal to and opposite to the force applied to plate by the material that moves in the first longitudinal direction)

- Supporting the plate for pivotal movement (fig. 2; the plate is supported in such a way that it moves pivotally)
- Moving the plate by a power actuator (power actuator 45 moves the plate; C2/L1-3)
- Controlling the force applied by the plate (C5/L1-9; C6/L28-31; as the plate is moved the amount of plate surface area engaging the material changes resulting in a change in force applied by the plate)
- Controlling the position of the plate (C5/L1-9)
- Regarding claims 1, 11, 16, Hanson discloses in fig. 4 (see phantom line of the plate) the plate at an angle to the forward longitudinal direction, the angle greater than 0 and less than 90 degrees. Additionally, the plate is pivotally mounted by a hinge (EX2).

3. Regarding claim 8, the examiner has treated use of the term “coal” in the claim as a recitation to the manner in which the claimed apparatus is intended to be used or employed. The claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. In this case Hanson ‘236 discloses all of the structural limitations of the claim as shown above and it is inherent that the device of Hanson is capable of being used with “coal”.

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4. Claims 1, 9, 10 are rejected under 35 U.S.C. 102(b) as being anticipated by Stock et al. (USP 4,257,518). Stock et al. disclose a similar device, shown in fig. 1 & 2, for feeding particulate material. The device of Stock et al. comprises a(n):

- Conveyor belt (31) that conveys the material in a forward longitudinal direction
- Material inlet (EX1, labeled by examiner; material exiting the bottom of the hopper 12 is feed to the conveyor) located above at least a first portion of the conveyor belt
- Movable plate (65) located above at least a second portion of the conveyor belt (plate 46 is downstream of the material inlet EX1), that provides a force on the particulate material
- Pair of side skirts (41, 42) extending substantially along at least a portion of the length of the conveyor
- Rear end skirt (43) that extends across the width of the belt in a rearward direction from the material inlet (skirt 43 is upstream of inlet EX1)

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hanson.

Hanson discloses all of the limitations of the claim, and while Hanson does indeed disclose that the power actuator (45) is a cylinder (C5/L3), he is silent as to whether the cylinder is an air cylinder or a hydraulic cylinder.



Although Hanson does not explicitly disclose that the cylinder (45) is an air cylinder, it was typical at the time of the invention to use air cylinders (see USP 4,643,332 C3/L36-37). Air cylinders at the time of the invention provided for a means to actuate that was cleaner and safer than hydraulic cylinders that occasionally can leak. Such leaks can contaminate product being conveyed and can also contribute to a slippery and hazardous working environment.

It would have been obvious to one having ordinary skill in the art at the time of the invention to have employed the use of an air cylinder since air cylinders were typically used at the time of the invention and for the purpose of providing for an actuation means that operates off of a clean fluid thus preventing contamination of product being conveyed in the event of a leak and also for the purpose of providing for an actuation means that operates off a fluid that will not contribute to an hazardous and slippery working environment in the event of a leak.

### ***Conclusion***

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

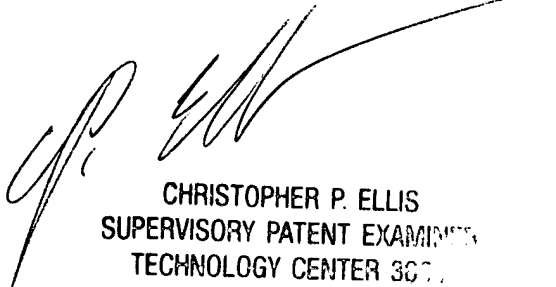
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CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

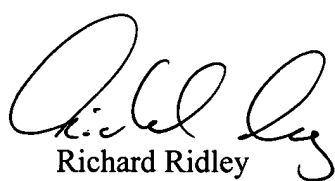
9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Richard Ridley whose telephone number is (703) 306-5910. The examiner can normally be reached on Mon-Thur 7:00 am - 5:15 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris Ellis can be reached on (703) 308-1113. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-7687 for regular communications and (703) 308-0552 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1113.



CHRISTOPHER P. ELLIS  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 3651



Richard Ridley  
May 23, 2003

Richard Ridley  
Examiner  
Art Unit 3651